

Claims

1. Device (1) for transmitting and receiving data in a digital telecommunication system, in which a random access channel for transmitting random access bursts is provided, with

generating means (3) for generating a random access burst comprising a preamble part for acquiring a part of said random access channel and at least one message part for transmitting data in said acquired part of said random access channel, the number of message parts depending on an amount of data to be transmitted in the message parts, whereby in case that two or more message parts are generated, the generating means generates said random access burst with at least one continuation indicator indicating said two or more message parts, and

transmitting means (4) for transmitting said random access burst generated by said generating means.

2. Device (1) for transmitting and receiving data in a digital telecommunication system according to claim 1,

characterized in,

that said generating means (3) generates a random access burst comprising two or more message parts so that a continuation indicator is contained in at least the first message part.

3. Device (1) for transmitting and receiving data in a digital telecommunication system according to claim 1 ~~or 2~~,

characterized in,

that said generating means (3) generates a random access burst comprising two or more message parts so that each preceding message part comprises a continuation indicator indicating an immediately succeeding message part.

4. Device (1) for transmitting and receiving data in a digital telecommunication system according to claim 1, ~~2 or 3~~,

characterized in,

that said generating means generates a random access burst comprising two or more message parts so that the last of the message parts comprises an end indicator indicating the message part to be the last message part.

5. Device (1) for transmitting and receiving data in a digital telecommunication system according to claim 1 ~~or 2~~,

characterized in,

that said random access channel comprises a number of random access slots being divided into a first section containing contention based random access slots and a second section containing reservation based random access slots, whereby said transmitting means (4) transmits the preamble part of a random access burst comprising two or more message parts in said second section.

6. Device (1) for transmitting and receiving data in a digital telecommunication system according to claim 5,

characterized in,

that said generating means (3) generates said preamble of a random access burst comprising two or more message parts by randomly choosing one of the random access slots of the second section, whereby a preamble signature code allocated to the chosen random access slot serves as continuation indicator indicating that a second message part will be transmitted after the first message part.

7. Device (1) for transmitting and receiving data in a digital telecommunication system according to claim 5 ~~or 6~~,

characterized in,

that said generating means (3) generates a random access burst comprising three or more message parts so that each first message part out of three immediately succeeding message parts comprises a continuation indicator indicating that a third message part will be transmitted after the second message part.

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8. Device (6) for transmitting and receiving data in a digital telecommunication system, in which a random access channel for transmitting random access bursts is provided, with

5 receiving means (8) for receiving a random access burst comprising a preamble part for acquiring a part of said random access channel and at least one message part for transmitting data in said acquired part of said random access channel, the number of message parts depending on an amount of data to be transmitted in the message part,

10 detecting means (9) for detecting a continuation indicator in a received random access burst, said continuation indicator indicating that said random access burst comprises at least two message parts, and

reserving means (11) for reserving a further part of said random access channel for receiving said message parts upon detection of said continuation indicator.

15 9. Device (6) for transmitting and receiving data in a digital telecommunication system according to claim 8,

characterized in,

that said detecting means (9) is adapted to detect said continuation indicator in at least a first received message part.

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10. Device (6) for transmitting and receiving data in a digital telecommunication system according to claim 8 ~~or 9~~,

characterized in,

25 that said reserving means (11), upon detecting said continuation indicator in a received message part, reserves a further part of said random access channel for an immediately succeeding message part.

11. Device (6) for transmitting and receiving data in a digital telecommunication system according to claim 8, ~~9 or 10~~,

30 **characterized in,**

that said detecting means (9) is further adapted to detect an end indicator in a received message part, said end indicator indicating the message part to be the last message part

of at least two message parts, whereby said reserving means terminates the reservation of the random access channel upon the detection of said end indicator.

5 12. Device (6) for transmitting and receiving data in a digital telecommunication system according to claim 8 ~~or 9~~,

characterized in,

that said random access channel comprises a number of random access slots being divided into a first section containing contention based random access slots and a second section containing reservation based random access slots, whereby after the reception of a preamble part of a random access burst in said second section, said reserving means (11) reserves a further part of said random access channel for receiving at least two message parts.

15 13. Device for transmitting and receiving data in a digital telecommunication system according to claim 12,

characterized in,

that said detecting means, after the reception of a preamble part of a random access burst in said second section, treats the preamble signature code of said preamble part as the continuation indicator indicating that a second message part will be transmitted after the first message part, whereby said reserving means (11) reserves a further part of said random access channel for receiving said second message part.

25 14. Device for transmitting and receiving data in a digital telecommunication system according to claim 12 ~~or 13~~,

characterized in,

that said reserving means (11), upon detection of a continuation indicator in a received message part of a random access burst, reserves a further part of said random access channel for receiving a further message part after the immediately succeeding message part.

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15. Method for transmitting and receiving random access bursts in a random access channel of a digital telecommunication system, with the steps of

generating a random access burst comprising a preamble part for acquiring a part of said random access channel and at least one message part for transmitting data in said acquired part of said random access channel, the number of message parts depending on an amount of data to be transmitted in the message parts, whereby in case

5 that two or more message parts are generated, said random access burst is generated with a continuation indicator indicating a succeeding message part,

transmitting said generated random access burst,

receiving said random access burst

detecting said continuation indicator in said received random access burst and

10 reserving a further part of said random access channel for receiving at least two message parts.

16. Method for transmitting and receiving random access bursts in a digital telecommunication system according to claim 15,

15 **characterized in,**

that in a random access burst comprising two or more message parts a continuation indicator is contained in at least the first message part.

17. Method for transmitting and receiving random access bursts in a digital telecommunication system according to claim 15 ~~or 16~~,

characterized in,

that in a random access burst comprising two or more message parts each preceding message part comprises a continuation indicator indicating an immediately succeeding message part.

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18. Method for transmitting and receiving random access bursts in a digital telecommunication system according to claim 15, ~~16 or 16~~,

characterized in,

that in a random access burst comprising two or more message parts the last of the

30 message parts comprises an end indicator indicating the message part to be the last message part.

19. Method for transmitting and receiving random access bursts in a digital telecommunication system according to claim 15 ~~or 16~~,
characterized in,

that said random access channel comprises a number of random access slots being divided into a first section containing contention based random access slots and a second section containing reservation based random access slots, whereby the preamble part of a random access burst comprising two or more message parts is transmitted in said second section.

10 20. Method for transmitting and receiving random access bursts in a digital telecommunication system according to claim 19,
characterized in,

that said preamble of a random access burst comprising two or more message parts is generated by randomly choosing one of the random access slots of the second section,
15 whereby a preamble signature code allocated to the chosen random access slot serves as continuation indicator indicating that a second message part will be transmitted after the first message part.

21. Method for transmitting and receiving random access bursts in a digital
20 telecommunication system according to claim 19 ~~or 20~~,
characterized in,

that in a random access burst comprising three or more message parts each first message part out of three immediately succeeding message parts comprises a continuation indicator indicating that a third message part.